

In the Specification

Please amend the specification, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents as follows:

Page 1, line 6, please insert a paragraph thereat as follows:

This is a Division of U.S. Application Serial No. 09/743,871, filed on March 13, 2001 as the National Phase Application of International Application No. PCT/US99/15977, having an international filing date of July 15, 1999, and designating the U.S. and claiming priority from U.S. Application No. 60/093,002, filed June 16, 1998.

Page 15, line 4 please insert a paragraph thereat as follows:

SEQ ID NOS: are assigned to the sequences as described below:

SEQ ID NO: 1 refers to the amino acid sequence of mouse KOR3A

SEQ ID NO: 2 refers to the amino acid sequence of mouse KOR3B

SEQ ID NO: 3 refers to the amino acid sequence of mouse KOR3C

SEQ ID NO: 4 refers to the amino acid sequence of mouse KOR3E

SEQ ID NO: 5 refers to the amino acid sequence of rat KOR3A

SEQ ID NO: 6 refers to the amino acid sequence of human KOR3A

SEQ ID NO: 7 refers to the amino acid sequence of human KOR3D

SEQ ID NO: 8 refers to the nucleotide sequence of mouse KOR3a

SEQ ID NO: 9 refers to the nucleotide sequence of mouse KOR3b

SEQ ID NO: 10 refers to the nucleotide sequence of mouse KOR3c

SEQ ID NO: 11 refers to the nucleotide sequence of mouse KOR3e

SEQ ID NO: 12 refers to the nucleotide sequence of rat KOR3a

SEQ ID NO: 13 refers to the nucleotide sequence of human KOR3a

SEQ ID NO: 14 refers to the nucleotide sequence of human KOR3d

SEQ ID NO: 15 refers to the nucleotide sequence of mouse KOR-3D

SEQ ID NO: 16 refers to the nucleotide insertion sequence of mouse KOR-3A

SEQ ID NO: 17 refers to the nucleotide insertion sequence of mouse KOR-3B

SEQ ID NO: 18 refers to the nucleotide insertion sequence of mouse KOR-3E

SEQ ID NO: 19 refers to the amino acid sequence of the basic unit of linking peptide (GGGGS)

SEQ ID NO: 20 refers to the nucleotide sequence of sense primer (5'-TGCCCTTCCTGCCCCCTTGGAC-3')

SEQ ID NO: 21 refers to the nucleotide sequence of antisense primer (5' -CCCAGAAGGATGTCTGTGCCC-3')

SEQ ID NO: 22 refers to the nucleotide sequence of probe (5'-GGTGTGCCTGCTGTC TCCAGTTCCTCAATGCCCTCCCAGCTGAGGA-3')

SEQ ID NO: 23 refers to the nucleotide sequence of probe (5'-CCTCAGTCTCTCTTAAGACTCTCAGAGGGTTTCAGGGCACTGCC-3')

SEQ ID NO: 24 refers to the nucleotide sequence of sense primer (5'-TCCTGGGGAAGTGCCTCGTC-3')

SEQ ID NO: 25 refers to the nucleotide sequence of antisense primer (5'-CCCAGAAGGATGTCTGTGCCC-3')

SEQ ID NO: 26 refers to the nucleotide insertion sequence of mouse KOR-3C

Page 14, line 3 please rewrite the paragraph thereat as follows:

Figure 9A and 9B is the nucleic acid sequence specific to mKOR-3A (exons 1,1a,2,3) and the GenBank accession number.

Page 14, line 7 please rewrite the paragraph thereat as follows:

Figure 11A and 11B is the nucleic acid sequence mKOR-3C (exons 1,2,1c,3,4,5) and the GenBank accession number.

Page 28, line 1 please rewrite the paragraph thereat as follows:

Single chain V region fragments ("scFv") can also be produced. Single chain V region fragments are made by linking L (light) and/or H (heavy) chain V (variable) regions by using a short linking peptide. Bird et al. (1988) Science 242:423. Any peptide having sufficient flexibility and length can be used as a linker in a scFv. Usually the linker is selected to have little to no immunogenicity. An example of a linking peptide is (GGGS)₃ SEQ ID NO: 19, which bridges approximately 3.5 nm between the carboxy terminus of one V region and the amino terminus of another V region. Other linker sequences can also be used, and can provide additional functions, such as a means for attaching a drug or a solid support.

Page 29, line 24 please rewrite the paragraph thereat as follows:

A sense (5'-TGCC TTC CTG CCC CTT GGA C-3'; positions 419-438) SEQ ID NO: 20 and an antisense primer (5'-CCC AGA AGG ATG TCT GTG CCC-3'; position 610-630) SEQ ID NO: 21 based upon the nucleotide sequence of the mouse KOR-3 clone (GenBank accession number U09621) were used to amplify cDNA fragments using PCR. The template was first-strand cDNA reverse transcribed with random hexameters from C57BL/6 mouse brain total RNA prepared as described by Chomczynski et al. (1987) Anal. Biochem. 162:156-159. Multiple bands were obtained by PCR, isolated, subcloned and sequenced in both directions. Four KOR-3-related clones were identified.

Page 30, line 11 please rewrite the paragraph thereat as follows:

Polyadenylated RNAs were isolated from mouse total RNAs using oligo(dT) chromatography (Pharmacia, Piscataway, NJ) as described by Pan et al. (1995) Mol. Pharmacol. 47:1180-1188. Northern blotting followed the protocol for GeneScreen Plus membranes (New England Nuclear, Boston, MA). Probes for KOR-3a (5'-GGT GTG CCT GCT GTC TCC AGT TCC CCT CAA TGC CCT CCC AGC TGA GGA-3') SEQ ID NO: 22 and KOR-3b/KOR-3c (5'-CCT CAG TCT CTC TTA AGA CTC TCA GAG GGT TTT CAG GGC ACT GCC-3') SEQ ID NO: 23 were 5'-end ³²P-labeled by T4 polynucleotide kinase. A ³²P-labeled 1.1 kb fragment containing the full length of the KOR-3 coding region was generated by PCR with appropriate primers.

Page 30, line 22 please rewrite the paragraph thereat as follows:

Total RNAs from various C57BL/6 mouse brain regions were extracted and reverse transcribed using random hexameters. Two primers were designed from the nucleotide sequence of mouse KOR-3/ORL-1 receptor at positions 486-505 (sense primer, 5'-TCC TGG GGA ACT GCC TCG TC-3') SEQ ID NO: 24 and 610-630 (antisense primer, 5'-CCC AGA AGG ATG TCT GTG CCC-3') SEQ ID NO: 25 and used in sequential PCR reactions with the first-strand cDNAs as templates. The predicted sizes of the amplified cDNA fragments for KOR-3, KOR-3a, KOR-3b and KOR-3c are 145 bp, 179 bp, 232 bp and 284 bp, respectively. The PCR products were then separated by 1.5% agarose gel, transferred on GeneScreen Plus membranes and hybridized with a ³²P-labeled 107 bp fragment of the coding exon 2 generated